

WHAT IS CLAIMED IS:

1. A card-cleaning assembly for a printer, comprising:

a card-cleaning means comprising a card-cleaning roller mounted to a frame of the printer, and a spring biasing means to urge the roller against a surface of the card so that the roller collects debris from the card surface; and

a cleaning means for removing debris from the card-cleaning roller, the cleaning means, comprising:

(i) a pivot arm pivotably attached to the printer frame; and

(ii) an adhesive tape cartridge mounted to the pivot arm, the tape cartridge

including a lower and upper tape core;

wherein a force exerted on the pivot arm causes the arm to pivot so that the tape cartridge and cleaning roller engage each other, and the tape removes debris from the roller as the tape is peeled from the lower tape core to the upper tape core and the cleaning roller rotates.

2. The card-cleaning assembly of claim 1, wherein the cleaning roller is made from a rubber material.

3. The card-cleaning assembly of claim 1, wherein the spring biasing means comprises a pair of springs.

4. The card-cleaning assembly of claim 1, wherein a motor means causes the pivot arm to pivot so that the tape cartridge and cleaning roller engage each other.
5. The card-cleaning assembly of claim 4, wherein the pivot arm comprises a motor gear and shaft for driving the arm.
6. The card-cleaning assembly of claim 5, wherein the pivot arm further comprises an idler gear having a one way clutch.
7. The card-cleaning assembly of claim 6, wherein the pivot arm further comprises a drive gear spline.
8. The card-cleaning assembly of claim 1, wherein the upper core of the tape cartridge comprises a spline for mounting the tape cartridge to the pivot arm.
9. The card-cleaning assembly of claim 1, wherein the peeling of the tape exerts a force on the cleaning roller, thereby causing the tape to maintain continuous contact with the cleaning roller as the roller rotates.

10. The card-cleaning assembly of claim 9, wherein the peeling tape exerts a force on the cleaning roller so that the roller rotates at about twice the rotational speed as the lower tape core.

11. The card-cleaning assembly of claim 1, further comprising a rotatable slotted wheel attached to the cleaning roller and an optical sensor for detecting movement of the slots on the wheel.

12. The card-cleaning assembly of claim 1, wherein the printer is a thermal printer.

13. A thermal printer apparatus, comprising:

a) a print station for thermally printing indicia on a surface of a card substrate;

b) a linear transport system for transporting the card beneath the print station and to the card-cleaning assembly, the linear transport system comprising:

(i) a carriage for receiving the card, wherein the surface of the card to be printed faces upwards in the carriage;

(ii) a linear guide means for guiding the carriage beneath the print means;
and

(iii) a reversible drive means for driving the carriage along the linear guide means; and

c) a card-cleaning means for cleaning the surface of the card as the card is

transported in the printer, the card-cleaning means, comprising:

a card-cleaning roller mounted to a frame of the printer, and a spring biasing means to urge the roller against a surface of the card so that the roller collects debris from the card surface; and

a cleaning means for removing debris from the card-cleaning roller, the cleaning means, comprising:

(i) a pivot arm pivotably attached to the printer frame; and

(ii) an adhesive tape cartridge mounted to the pivot arm, the tape cartridge including a lower and upper tape core;

wherein a force exerted on the pivot arm causes the arm to pivot so that the tape cartridge and cleaning roller engage each other, and the tape removes debris from the roller as the tape is peeled from the lower tape core to the upper tape core and the roller rotates.

14. The thermal printer apparatus of claim 12, wherein the linear transport system further comprises a card-flipping means for lifting the card from the carriage, rotating the card, and returning the card to the carriage, whereby the other surface of the card faces upwards in the carriage and can be printed thereon.

15. The thermal printer apparatus of claim 12, further comprising a lamination station for laminating a film to a surface of the card.

16. A card-cleaning assembly for a printer, comprising:

a card-cleaning means comprising a translating, non-rotatable plate member mounted to a frame of the printer, and a spring biasing means to urge the plate against a surface of the card so that the plate collects debris from the card surface; and

a cleaning means for removing debris from the card-cleaning plate member, the cleaning means, comprising:

(i) a pivot arm pivotably attached to the printer frame; and

(ii) an adhesive tape cartridge mounted to the pivot arm, the tape cartridge including a lower and upper tape core;

wherein a force exerted on the pivot arm causes the arm to pivot so that the tape cartridge and plate member engage each other, and the tape removes debris from the plate as the tape is peeled from the lower tape core to the upper tape core and the plate member translates.